

CLAIMS

1. A method of determining a start of scan time in a laser scanning system utilizing a scanning reflector, comprising:
 - directing a laser beam toward the scanning reflector so as to be reflected by the scanning reflector;
 - returning the laser beam reflected from the scanning reflector toward the scanning reflector for at least one additional reflection from the scanning reflector;
 - detecting the laser beam reflected at least twice from the scanning reflector; and
 - controlling the start of scan of the scanning system, responsive to the detection of the laser beam.
2. A method according to claim 1, wherein transmitting the laser beam toward the scanning reflector comprises transmitting a beam separate from a beam used for conveying data in the scanning system.
3. A method according to claim 1, wherein detecting the laser beam comprises detecting by a detector adjacent a source of the laser beam.
4. A method according to claim 2, wherein detecting the laser beam comprises detecting by a detector adjacent a source of the laser beam.
5. A method according to claim 1, wherein detecting the laser beam comprises detecting by a detector included in a single housing with a source of the laser beam, which housing does not encompass the scanning reflector.
6. A method according to claim 2, wherein the separate beams are generated by a single source and are split on their way to the scanning reflector.
7. A method according to claim 1, wherein transmitting the laser beam toward the scanning reflector comprises transmitting a same beam as used for conveying data in the scanning system.

8. A method according to claim 1, wherein the scanning reflector comprises an oscillating reflector.

9. A method according to claim 1, wherein the scanning reflector comprises a rotating polygon reflector.

10. A method according to claim 5, wherein the scanning reflector comprises a rotating polygon reflector.

11. A laser scanning system, comprising:

a laser beam source modulated by data;

a scanning reflector;

at least one reflector positioned to receive light from the source that has been reflected from the scanning reflector back toward the scanning reflector;

a detector adapted to detect light reflected at least twice from the scanning reflector; and

a controller adapted to control the timing of the data, responsive to the detection of light by the detector.

12. A laser scanning system according to claim 11, wherein the at least one reflector comprises a plurality of reflectors, positioned such that the beam is reflected from the reflector more than twice before being detected.

13. A laser scanning system according to claim 11, wherein the scanning reflector comprises a rotating polygon reflector.

14. A laser scanning system according to claim 12, wherein the scanning reflector comprises a rotating polygon reflector.

15. A laser scanning system according to claim 11, wherein the scanning reflector comprises an oscillating reflector.

16. A laser scanning system according to claim 12, wherein the scanning reflector comprises an oscillating reflector.

17. A laser scanning system according to claim 11, wherein the laser beam source and the detector are included together in a single housing not encompassing the scanning reflector.

18. A laser scanning system, comprising:

- a laser beam source;
- a scanning reflector;
- a detector adapted to detect light reflected from the scanning reflector;
- a mounting element having the laser beam source and the detector but not the scanning reflector mounted therein or thereon; and
- a controller adapted to control the timing of the scanning system, responsive to the detection of light by the detector.

19. A laser scanning system according to claim 18, wherein the scanning reflector comprises an oscillating reflector.

20. A laser scanning system according to claim 18, wherein the scanning reflector comprises a rotating polygon reflector.

21. A laser scanning system according to claim 18, comprising an additional reflector adapted to reflect light from the source, which was reflected from the scanning reflector, back onto the scanning reflector.